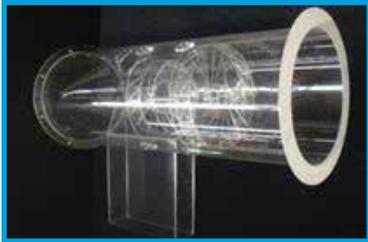




Plastic Fabrication Specialists



Industrial Plastics™ has a reputation for being project capable which has evolved over the forty-five years it has operated in Australia.

Industrial Plastics™ is now based in a 2400 square metre factory with 3500 metres of secured hard stand in Brisbane and has Branches in Newcastle and Melbourne.



Since the early days the business grew steadily but, after a change of ownership in May 2004, the increase in business development and maturity was particularly significant. 2015 has brought with it a new operating system and a business strategic plan that will, based on the existing high level of quality and customer service, differentiate Industrial Plastics™ across all plastics fabrication markets Australia wide.

Great customer service, backed up with systems that ensure reliability, accountability, consistency and quality is the foundation for the ongoing success and security of both Industrial Plastics™ and its valued customers. Our diverse customer base, which includes water treatment plant operators, mining companies, joinery businesses, marine engineers, farming businesses, universities and architects, ensures that we are accustomed with delivering great outcomes no matter how simple or complex the need is.



To this end Industrial Plastics™ is proud to be the industry leader in achieving and maintaining quality assurance certification to ISO 9001 since 2008.

Staff development is given priority. Establishing close working relationships with industry specific RTO's has meant staff are offered the opportunity to achieve nationally recognized vocational qualifications. Aligned with this, our desire to further broaden staff knowledge led Industrial Plastics™ to develop an enterprise specific training package based on the comprehensive requirements of the pre-eminent German technical codes for fabrication; incorporating hot air and extrusion welding¹



Progressing with technology has also been a key priority at Industrial Plastics™. Importing not one, but two state of the art computer controlled sheet welding machines from Germany, meant the increasing technical requirements of high quality durable fabrication could be assured. Scheduled calibration of all our equipment and regular maintenance ensures performance is maintained.



At Industrial Plastics™ we understand the importance of B2B partnerships, particularly within our supply chain. Our quality systems ensure that we have audited and approved material suppliers and transport consultants to ensure full product traceability. We only source the highest quality raw material for our fabrication and we promote products that are the best in their market, such as the Nuvex™ thermoplastic sheet range.



Our Project Quality Control system options can include provision of full production records such as Manufacturing Data Records (MDR's) and Inspection and Test Plans (ITP's), along with general Installation and Maintenance Instructions.

Our aim is to provide excellent service coupled with access to the highest quality options available in the market for when you need it most. Where your requirements are more for high quality, high volume solutions; Industrial Plastics™ offers efficiencies of scale gained through the effective use of technology and our impressive capacity, to rapidly provide for your needs.





Plastic Fabrication Specialists



We look forward to working with you to...

Communicate, Collaborate & Fabricate Solutions in Plastic

Industrial Plastics™ maintains divisions for both industrial and commercial fabrication using a variety of rigid plastic sheet, rod, tube and pipe, as well as some membrane materials.



Industrial Plastics™ also maintains significant and varied stock and supplies sheet, rod and tube in different colours and sizes. Options include full lengths or cut to size to meet both simple to complex requirements; promptly and at competitive prices.

Office Locations:

QUEENSLAND: 18 Goodman Place, Murarrie, 4172

NSW: 110 Mitchell Avenue, Kurri Kurri, 2327

VICTORIA: 21-35 Ricketts Road, Mount Waverley, 3149



Factory Location:

18 Goodman Place Murarrie, Queensland Australia

- > Work shop: 2,400 square metres
- > Secured Hard stand: 3,500 square metres
- > On-site water storage: 45,000 litres (available for hydrostatic tests)
- > Hydraulic loading bays x 2



Plant and equipment: See attachment 1

Design Options:

Being custom fabricators means your individual needs can be incorporated into projects.

Our qualified industrial design staff, experienced technical advisors and various trade qualified personnel utilise 2D and 3D software packages for project drafting and digital file generation for CNC cutting.



For tanks: the latest version of the German tank design software "RITA"² is utilised for static non-pressurised tank design incorporating cylindrical, rectangular and conical bottom tanks. RITA incorporates German technical codes for tank design³ as well as TUV⁴ certified calculations where common variations are required.

Designs based on Finite Element Analysis can also be accommodated as required.





Existing parts can be reverse engineered to economically provide for repair or replacement of components.

Quality Assurance:

Tanks are constructed to comply with the relevant sections of the Australian chemical containment standard⁵ as well as the pre-eminent international design codes for fabricated thermoplastic tanks⁶ or dual laminate tanks⁷

Production weld procedure specifications (WPS) incorporate the relevant codes¹ and are supported by a welding procedure qualification (WPO) independently assessed using relevant test standard⁸.



Strict, documented in-house quality tests include high voltage spark testing⁹, weld dimension measurements, workshop flexural bend test and destructive tests of trial welds. On premises hydrostatic testing is undertaken where requested.

We have on-site a re-usable water supply of 45,000 litres

Provision of all quality documentary requirements can be arranged:

- > Manufacturer Data Reports (MDR)
- > Inspection and Test Plans (ITP)
- > Routine transport, storage and installation instructions
- > Maintenance manuals



Material is sourced and tracked from our approved suppliers only. Complete traceability is assured.

Skills, Experience and Training:

Industrial Plastics™ encourages a culture of excellence and pride.

We are proud of our staff and the work we do and that philosophy translates to you having reduced worry when it comes to your purchase.



For in-house training Industrial Plastics™ developed an extensive enterprise based welding training package inspired by the European Standard¹⁰ and DVS Technical Code¹¹ for qualification training and testing of thermoplastic welders.

Once this training package is completed, theoretical and practical assessment is done based on the requirements of the codes. Test welds are independently tested – providing welder performance qualification (WPO) as well as welcome feedback. A salary incentive linked to successful completion of the package motivates staff to undertake it. The comprehensive theoretical component of the package contributes towards ongoing engagement and accountability.



In addition, key production personnel have completed training with visiting German trainers to achieve the DVS recognized welding qualification for hot air, extrusion and heated tool welding.



We have utilised the Plastic and Rubber Industry specific RTO (PARTEC) to ensure senior fabrication staff have nationally recognised qualifications to at least Certificate III in Plastic Processing – Fabrication.

Plastic fabrication has been recognised as a trade since 2004 and Industrial Plastics™ has had apprentices since that time.



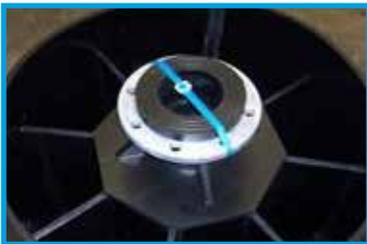
Our skills are complimented by the fact that most of our plastic fabricators also hold a previous trade qualification in other fabrication trades such as boiler-making, carpentry or fitting and turning.

Industrial Plastics™ is motivated to ensure our level of professionalism is reflected in the industry. Staff are active members of international professional associations to ensure latest developments are identified and adopted in our field.



Industry Associations Maintained:

- > Society of Plastic Engineers
- > The UK Welding Institute
- > The UK Welding and Joining Society



Insurance Maintained:

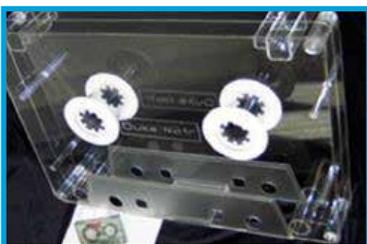
- > \$20 million public liability
- > Marine Transit
- > Business Interruption
- > Workcover Insurance.
- > Certificates of currency are available on request.

Previous Projects: See attachment 2



References:

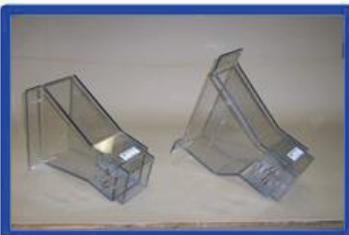
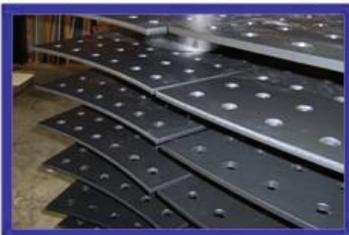
1. DVS* 2207 Welding of thermoplastics.
* Der Verbindungs Spezialisten (German Welding Society)
2. Roechling Integrated Tank Analysis (tank design software).
3. DVS 2205 Design calculations for tanks and apparatus made from thermoplastics.
4. Technischer Überwachungs-Verein (German Certification Body)
5. AS 3780 The storage and handling of corrosive substances.
6. DVS 2205 Calculation of tanks and apparatus made of thermoplastics.
BS EN 12573 Welded static non-pressurised thermoplastic tanks.
7. EN 13121 GRP tanks and vessels for use above ground.
8. DVS 2203-1 Testing of welded joints between panels and pipes made of thermoplastics - technological bending test.
9. DVS 2206-4 Non-destructive tests on tanks, apparatus and piping made of thermoplastics – testing with electrical high voltage.
10. EN 13067 Plastics welding personnel – Qualification testing of welders – thermoplastic welding assemblies.
11. DVS 2212 Qualification testing of plastic welders.





Attachment 1 - Plant and Machinery

- 4000mm Wegener Sheet Butt Welder (up to 60mm thick) incorporating automatic roller
- 3000mm Wegener Sheet Butt Welder (up to 60mm thick)
- Beam Saw 4500 x 3800mm
- CNC Multicam router 3000 x 2000mm
- CNC Multicam router 2600 x 1400mm
- CNC Laser Cutter 1200 x 1200mm capable of 2400 x 1200mm
- Panel Saws x 3
- Extrusion Welders x 8 (including PVC capable)
- Hot air hand welders – numerous
- Pipe Butt Welders x 2 (up 355mm diameter)
- Socket Fusion Welder
- Electro Fusion Welder
- Multiples of various power tools, bandsaws, pedestal drills etc
- Hydraulic Brake Press
- Forklifts x 4
- Rolling Gantry – 1.5 tonne
- Scissor Lift 8 Mts
- Diamond Polisher
- Sheet forming oven (2440 x 1220mm capacity)
- Double sided automatic line bender
- Work Vehicles x 3





Attachment 2 – Previous Projects

South Burnett Reg. Council	110,000L Cylindrical water storage tank 15000mm high: HDPE
Aquatec Maxcon	4010 x 4010 x 3900mm Steel reinforced sloped base tank: HDPE
Xstrata Copper	Mining launders(13) 18.6M long: steel encased HDPE
Rio Tinto	70,650L Bolt together HDPE tank with polycarbonate viewing ports
Burnie Council	10,000L Cylindrical sodium hypochlorite tanks: PVC-u
Tyco Engineered Tanks	Chilled water tank diffuser: complex piping project
Leighton Contractors	53,800L Cylindrical caustic tanks: HDPE (two)
Jellinbah Resources	4000L Conical slurry tank with internal ladder: HDPE
ARA Nyrstar	95,000L Sloped floor tank with anti-vortex plates: HDPE
Applied Australia	Multiple self banded processing tanks: HDPE
Origin Energy CSG Ltd	26,300L False floor surge tanks: HDPE
Goodman Fielder	9,000L Conical top/bottom sauce storage tanks: Polypropylene
Tanks Solutions	10,000L Dual laminate PVC-u/FRP tanks with incorporated HDPE bund
Warrnambool Cheese & Butter	Large segmented mobile food process bins: steel supported HDPE
Orica Water Care	Self-banded hypochlorite tanks: PVC-u/FRP (multiple)
Feedworks	40,000L Self-banded tank 5434mm high: HDPE
Xstrata Zinc	Mining launders(8) varying lengths: steel supported HDPE
Custom Chemicals	10,000L Cylindrical chemical mixing tank: Polypropylene
Aqueous Solutions	Clarifier and filter feed tanks: HDPE
Triple Nine Stainless	15,000L Cylindrical sloped floor, false base tank: Polypropylene
Australian Refined Alloys	30,000L Cylindrical process tank: HDPE
Wiley and Co (Schweppes)	60,000L Cylindrical tanks - 8300mm high x 3200mm diameter: HDPE
Veolia Water	45,000L Rectangular tank 7000 x 3500 x1900mm: HDPE
Leighton Contractors	47,000L Cylindrical ammonia tanks: HDPE
Ecolab	15,000L Cylindrical nitric acid tank: PVC-u encased with HDPE

Previous Industrial Projects



Fabrication

Hydrostatic testing



Steel enclosed launders

Steel supported launders



Steel supported launders

Mining Launders – Steel supported or encased

Goal – Avoid corrosion. Reduce cost. Reduce friction.

Solution – PE100 launders supported with galvanised steel frames.

Benefits –

- > Impressive chemical and abrasion resistance.
- > Low coefficient of friction.
- > No ongoing surface treatment required.
- > No corrosion.
- > Cost effective.



Dipping tank
- before

After – PP liner with
protective PE collar

Spill collection
option

Electroplating dipping liner:

Goal – Corrosion avoidance to extend longevity of dipping tank.

Solution – Polypropylene liner inserted into existing tank.

(free standing Polypropylene liners are another option)

Benefits –

- > Long standing chemical resistance.
- > Zero corrosion.
- > Cost effective.



Liner complete with spill
collection option



Prior to transport

Food Grade Containment Tank:

Goal – Maximise capacity in limited footprint.

Reduce maintenance requirements and costs.

Solution – UV rated and food grade PE100 tanks 60,000L each

Custom built with cylinder manhole access.

Benefits –

- > No ongoing surface treatment required.
- > Low thermal conductivity minimises external temperature influence.
- > Ease of access for cleaning and inspection.
- > Short and long term cost advantages.



Labelled tank with tie down
in place



Tanks insitu